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11 12 13 14		ES DISTRICT COURT RICT OF CALIFORNIA
15 16	OAKLAND DIVISION	
17 18 19 20 21 22	INTERTRUST TECHNOLOGIES CORPORATION, a Delaware corporation,  Plaintiff,  v.  MICROSOFT CORPORATION, a Washington corporation,  Defendant.	Case No. C 01-1640 SBA (MEJ)  Consolidated with C 02-0647 SBA (MEJ)  DEFENDANT MICROSOFT  CORPORATION'S PRELIMINARY INVALIDITY CONTENTIONS  (Patent Local Rules 3-3 and 3-4)
<ul><li>23</li><li>24</li><li>25</li></ul>	AND RELATED CROSS-ACTION.	

### I. Patent Local Rule 3-3(a) Identification of Prior Art

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Pursuant to Patent Local Rule 3-3, Defendant Microsoft Corporation ("Microsoft") makes the following Preliminary Invalidity Contentions<sup>1</sup> with respect to the following patents asserted by plaintiff InterTrust Technologies Corporation ("InterTrust") in this action: U.S. Patent No. 6,185,683 ("the `683 patent"); U.S. Patent No. 6,253,193 ("the `193 patent"); U.S. Patent No. 5,920,861 ("the `861 patent"); U.S. Patent No. 5,982,891 ("the `891 patent"); U.S. Patent No. 5,917,912 ("the `912 patent"); U.S. Patent No. 6,157,721 ("the `721 patent"); U.S. Patent No. 5,915,019 ("the `019 patent"); U.S. Patent No. 5,949,876 ("the `876 patent"); U.S. Patent No. 6,112,181 ("the `181 patent"); and U.S. Patent No. 6,389,402 ("the `402 patent").

Despite the length of time this case has been pending, discovery is still at an early stage due to intervening stays. InterTrust continues to assert cleven patents and over one hundred and fifty claims. In view of these factors, Microsoft continues to evaluate the prior art at this time. Microsoft reserves the right to amend or supplement its Preliminary Invalidity Contentions to take into account prior art, information or defenses that might come to light as a result of its continuing discovery efforts, errors subsequently recognized by any of the parties, and as a result of further evaluation of the prior art. In addition, Microsoft has moved to strike InterTrust's September 2, 2003 PLR 3-1 Preliminary Infringement Contentions as being insufficient. To the extent that the Court grants Microsoft's motion and orders InterTrust to amend/re-serve its 3-1 statement in compliance with the Local Rules, Microsoft reserves the right to amend or supplement its PLR 3-3 Preliminary Invalidity Contentions in response to any amended infringement contentions submitted by InterTrust. Microsoft further reserves the right to rely

<sup>1</sup> These Preliminary Invalidity Contentions incorporate by reference Microsoft's prior Preliminary Invalidity Contentions dated August 7 and 16, 2002.

For example, Microsoft reserves the right to amend/supplement this disclosure once InterTrust complies with discovery responses, which Microsoft contends are incomplete and inadequate. To date, Microsoft has objected to InterTrust's continued refusal to provide information sought in discovery, including, but not limited to: the identity of the alleged inventors of specific claims; conception or actual reduction to practice dates for specific claims; whether to there has ever been any alleged embodiment(s) of the asserted claims; and what, if any, specification support is alleged, including from any of the applications for which InterTrust claims priority. Each of these pieces of information could affect the priority date for any given claim, expanding or narrowing the window of applicable prior art. Without this information, which is within InterTrust's exclusive knowledge and control, Microsoft's PLR 3-3 Contentions are subject to amendment and/or supplementation.

upon InterTrust's own activities, alone and in connection with others. Microsoft further reserves the right to amend this statement or otherwise further respond if InterTrust contends (or the Court rules) that any earlier or later priority dates may apply for individual claims. Microsoft also reserves its right to amend or supplement these invalidity contentions pursuant to Patent Local Rule 3-6 and 3-7.

Attached hereto, as Appendix A, is a listing showing "the identity of each item of prior art that allegedly anticipates each asserted claim or renders it obvious" (PLR 3-3(a)). On information and belief, each listed publication became prior art at least as early as the dates given. In addition, the citations and explanations provided in the exhibits are mere examples, and Microsoft reserves its right to rely on any other portions or aspects of the prior art references and systems that may also disclose or practice elements of the asserted claims. Patent Local Rule 3-3 does not require identification of evidence that establishes the inherence of a claim element in an item of prior art, nor does it require identification of evidence that establishes knowledge of those of ordinary skill in the relevant fields of art. Accordingly, Microsoft does not purport to have provided all such information in the attached exhibits.

From InterTrust's current document production, it appears that its employees' and consultants' activities, including offers for sale, public uses, derivations, "inventions" (as the word is used in 35 U.S.C. § 102(g)), and disclosures to Willis Ware, Drew Dean, and others not under any duty of confidentiality, constituted or created material and perhaps anticipatory prior art to many of the asserted claims. This art was not cited to the Patent Office. Discovery is ongoing, and Microsoft reserves the right to amend or supplement this disclosure after Microsoft has had an opportunity to investigate this possible prior art during discovery.

## II. Patent Local Rule 3-3(b) and 3-3 (c) Classification and Analysis of Prior Art

Microsoft contends that at least one term or phrase in each of the asserted claims is indefinite under 35 U.S.C. § 112, and hence, each of the asserted claims is incapable of construction. However, for the limited purpose of classification and analysis of prior art, Microsoft has construed the claim terms in a manner consistent with the apparent construction of terms offered by InterTrust in its Revised Preliminary Infringement Contentions. Microsoft does

not agree with these constructions, and nothing in these Preliminary Invalidity Contentions should be construed as an admission, a declaration against interest, whether under the Federal Rules of Evidence or otherwise, as to what a particular claim limitation means. For this reason, Microsoft's identification of "corresponding structures" for "means-plus-function" limitations that are set out in the Preliminary Invalidity Charts are not admissions as to the identity of such structures. Rather, they are based upon Microsoft's best guess as to what InterTrust may someday identify as corresponding structures for the means-plus-function limitations of its asserted claims, to the extent that Microsoft understands them.<sup>3</sup>

Accordingly, Microsoft's Preliminary Invalidity Contentions should not be construed as advocating a particular claim construction for any disputed claim terms. For the limited purpose of providing Preliminary Invalidity Contentions, and subject to the conditions set forth above, Microsoft has, to the extent possible, attempted to construe the claims in a manner consistent with InterTrust's Revised Preliminary Infringement Contentions.

Pursuant to Patent Local Rules 3-3(b) and 3-3(c), Microsoft provides the classification of prior art in the listing and charts attached hereto as Appendices A and B. Appendix A, beyond identifying each item of prior art, further indicates whether each prior art reference is used as an anticipatory reference and/or as a reference which, alone, or in combination with other prior art, renders the claims obvious. Appendix B includes charts which (1) specifically identify where in each item of prior art each element of each asserted claim is found and (2) establish how that prior art anticipates or renders obvious all of the asserted claims. In the event that any charted prior art is found not to be anticipatory under 35 U.S.C. § 102, Microsoft reserves the right to rely upon that art to prove obviousness under 35 U.S.C. § 103. Likewise, in the event InterTrust

To date, InterTrust has refused to identify any structure corresponding to the means-plus-function elements in its asserted claims. It is Microsoft's position that this is a violation of the Patent Local Rules, and that as a result of refusing to identify a structure associated with each means-plus-function element, InterTrust admits that there is no such structure disclosed, has waived its right to assert claimed structure, and that those claims are therefore invalid at least for failure to satisfy the written description requirement of 35 U.S.C. §112. See InterTrust's Patent Local Rule 3-1 served September 2, 2003 and InterTrust's Opposition to Microsoft's Motion to Strike InterTrust's PLR 3-1 Contentions.

amends or supplements its Preliminary Infringement Contentions, Microsoft reserves its rights to amend and supplement its Preliminary Invalidity Contentions.

To the extent that any prior art produced to InterTrust has not been classified as prior art under 35 U.S.C. §§ 102 or 103, Microsoft reserves the right to rely on this art or supplement its disclosure for the following reasons:

- (i) Microsoft's position on the invalidity of particular claims will depend on how those claims are construed by the Court. As thus far only preliminary claim construction has occurred Microsoft cannot take a final position for the bases for invalidity of disputed claims. The Court's subsequent claim constructions of remaining terms may yield constructions different from what Microsoft assumes herein.
- (ii) Microsoft is continuing to diligently search for relevant prior art but has not yet completed that search and continues to evaluate prior art that has been located.
- (iii) Microsoft has not completed its discovery from Plaintiff or from third parties with knowledge of the relevant prior art. Depositions of the persons involved in the drafting and prosecution of the patents-in-suit, the inventors, and persons who attempted to practice InterTrust's claimed invention, for example, will likely affect Microsoft's contentions.

# A. Prior Art Under 35 U.S.C. § 102 Which Anticipates The Asserted Claims of Each of the Asserted Patents

Subject to the above-referenced qualifications concerning the preliminary nature of this disclosure, Microsoft believes a reasonable basis exists that, as more particularly explained in the Preliminary Invalidity Contentions attached as Appendix B hereto, the references listed in Appendix B anticipate the asserted claims of the each of the asserted patents.

## B. Prior Art Under 35 U.S.C. § 103 Which Renders Obvious One or More of the Asserted Claims

Each of the references called out in Appendix A can be combined with one another so as to render one or more of the claims of the asserted patents invalid as obvious, and many of them are explicitly motivated to do so by virtue of extensive cross-references to one another's solutions. InterTrust is currently asserting 151 claims in eleven patents, which citc hundreds of references. Hundreds of additional non-cited relevant prior art has been uncovered and cited to

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InterTrust. The number of potential combinations of these references, if only two or a few references are combined for each claim, is necessarily very large. Microsoft requests InterTrust to reduce its asserted claims so as to reduce the number of combinations to a manageable number. Nonetheless, Microsoft has provided mapping of combinations as discussed below. Indeed, even where explicit cross-referencing and incorporation by reference does not exist, the motivation to combine any of the references arises from the common objectives and subject matter, digital rights management. The common objectives and subject matter are expressed generally in the claim charts of Appendix B, which are incorporated by reference into Microsoft's showing under 35 U.S.C. § 103.

The motivation for seeking "security," privacy and integrity was widely recognized in the United States and elsewhere prior to February 13, 1994, and since prior to February 13, 1994, has extended to any information or item of perceived value, including books, music, games, computer systems, other computer programs, and any digital data or content that maybe deemed valuable or worthy of protection. Additional motivations to combine references include the desire to meet or exceed any applicable laws or industry or government standards, such as the Orange Book, Computer Fraud and Abuse Act of 1986, Computer Security Act of 1989 PL100-35, High Performance Computing Act (HPCA) of 1991 (PL102-194), and 17 U.S.C. §§ 101 et seq. Industry standards include those for communication such as X.509, TCP/IP, WWW, and WAIS, and those for encryption or transmission of encrypted information, e.g. DES, Triple DES, RSA, SSL, MIME, S/MIME, SHTTP, HTTPS, MD5, and PEM. Additional teachings to combine these references with such items of information include "security" (including "security" levels), permissions, certificates, tickets, "secure" processors, "secure" storage, "smart" cards (including smart cards able to store data and perform computations such as encryption/decryption), tamper resistance techniques for hardware and software, physical "security", and "trusted" time. Also included are authentication and authorization in trusted distributed systems, enabling software or features thereof to run only on particular machines or in particular ways, and treating binary information/data at varied levels of granulants.

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1 or hardware available at the time. For example, it would have been obvious to combine any file 2 and operating systems such as NT, NFS, Andrew, Netware, Mach, DT Mach, Multics, Amoeba, 3 ISOS, and Unix; or protocols, codes and systems such as secure kernels, WWW, SSL, SGML, 4 hyptertext, Oak, Telescript, OOP and other programming technologies or frameworks (e.g. 5 Smalltalk, COM, OLE, Bento, OpenDoc; object oriented databases with watermarking; 6 obfuscation; swIPe; SNMP; auditing; on-line (or other digitally transmitted) transaction and 7 subscription-based services and billings; electronic payment; on-line banking, entertainment and 8 commercial interactive commerce; ATMs; encryption and authentication; physical security tools and devices; physically secure locations; physically "secure" products such as tamper resistant 10 computer or other devices, "secure" processors, "secure" memory, "smart" cards, set-top boxes, 11 portable devices, "secure" communications facilities, electronic wallets.4 12

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Patent Local Rule 3-3(d) Disclosure: Invalidity For Failure to Satisfy III. 35 U.S.C. § 112.

Each of the asserted InterTrust patent claims is invalid as indefinite, for inadequate written description and for lack of enablement as those requirement are set forth by 35 U.S.C. § 112.5 In accordance with Patent L.R. 3-3(d), Microsoft identifies in Appendix C, attached hereto, exemplary bases, on an element by element basis, for invalidating each asserted claim of each asserted patent for indefiniteness and lack of an adequate written description. The asserted claims are unclear in scope and not nearly as precise as the subject matter allows.

It was further obvious to combine any of these "security" features with any of the software

Appendix C contains examples of why the indefiniteness prohibited by 35 U.S.C. § 112(2) arises from many causes, including:

> a) use of terms that lack an ordinary meaning in the art and are undefined in the specification;

<sup>4</sup> These examples are not intended to be an exhaustive list and are set forth for illustrative purposes.

Microsoft also assens that one or more of the claims are invalid under 35 U.S.C. § 112(1) for failure to identify the "best mode" for carrying out the invention. However, pursuant to Patent L.R. 3-3(d), Microsoft's arguments related to that defense are not required to be set forth in the attached charts, and hence are not included in Exhibit C.

- b) use of terms that are used in the specification in a manner which is internally inconsistent, as well as inconsistent with their ordinary meaning, but are not specifically defined in the specification;
- c) InterTrust's refusal to identify the structure in the application's written description linked to claim elements subject to 35 U.S.C. § 112, ¶6 ("means (or step) plus function);
- d) such excessive disclaimers of specificity of a term that the term becomes meaningless;
- e) inconsistent uses of a term within a single specification;
- f) inconsistent uses of a term between a specification and something allegedly incorporated into that specification;
- g) inconsistencies within the language of a given claim;
- h) inclusion of the same element twice in a claim, resulting in improper double inclusion of an element;
- i) impermissible reference to trademarks in a claim;
- j) inconsistent use of terms that may be synonyms for one another or that could be used to mean same thing or different things.

The indefiniteness of the asserted claims is exacerbated by InterTrust's attempt to apply these claims to the very different structures and techniques of (or those that InterTrust wrongly attributes to) the Microsoft accused products. Microsoft reserves the right to modify this listing, e.g., if and when InterTrust clarifies its infringement contentions and claim construction positions.

Appendix C also provides examples of the lack of an adequate written description supporting the asserted claims. For example, the asserted claims fail for lack of an adequate written description under 35 U.S.C. § 112(1) to the extent that they are construed to contradict and/or fail to require the essential, non-optional alleged attributes of the alleged "inventions" identified in their specifications (and any specification allegedly incorporated by reference) and the applications from which the patents issued. The asserted claims also fail to comply with the

written description requirement as set forth in *Gentry Gallery, Inc v. Berkline Corp.*, 134 F.3d 1473 (Fed. Cir 1998) to the extent that the scope of any of them exceeds the scope of the alleged "invention" as set forth in the accompanying specification (and any specification allegedly incorporated therein). For example, in the specification of U.S. Patent No. 6,253,193 InterTrust states that:

The present invention assertedly provides a new kind of "virtual distribution environment" (called "VDE" in this document) that secures, administers, and audits electronic information use. VDE also features fundamentally important capabilities for managing content that travels "across" the "information highway." These capabilities comprise a rights protection solution that serves all electronic community members. These members include content creators and distributors, financial service providers, end-users, and others. VDE is the first general purpose, configurable, transaction control/rights protection solution for users of computers, other electronic appliances, networks, and the information highway.

Accordingly any claims that rely on this specification must be limited in scope to the invention described therein. To the extent that they exceed the scope of what is described, they are invalid under the written description requirement.

Microsoft further contends that each asserted claim, when viewed in its entirety, is invalid under 35 U.S.C. § 112(1) because the specifications of the patents fail to teach one of ordinary skill in the art how to practice the entirety of the broad scope of those claims without undue experimentation.

For example, based on the specification, most if not all of the claims involve the use of software of one kind or another, yet the specification does not disclose any software programs that could be used or adapted for use in practicing the claimed inventions. In addition to failing to disclose any software program by explicit reference, the patent specifications does not describe with sufficient specificity the identity of software programs needed to practice the claimed invention that would prevent the need for undue experimentation by a person skilled in the art to practice the claimed inventions. The claims set forth a multiplicity of functions, features, and characteristics for the purported inventions, and the specifications are replete with references to software necessary to practicing the inventions, yet the specification neither identifies enabling software that satisfies such requirements, nor provides guidance that would

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allow a person of ordinary skill in the art to program enabling software without undue experimentation.<sup>6</sup>

As shown in Appendix C<sup>7</sup>, asserted claims contain terms that are subject to multiple definitions, and the patent specifications do not disclose one or more of the alternate definitions. The full scope of the claim is therefore not described or taught in the specification. Any claim in Appendix C that contains a claim term subject to multiple definitions fails to teach the full scope of the claim and therefore fails the enablement requirement if the specification does not specify the operative definition for the term.

There are numerous other reasons that the unprecedented breadth of scope of the claims asserted by InterTrust are not enabled, including InterTrust's failure to implement the claims after substantial investment of time, labor, and money. Given the complexity of the asserted patents and their interdisciplinary subject matter, the state of the prior art, the absence of predictability of the prior art, the amount of experimentation necessary to practice the patents, the absence of embodiments, and the absence of guidance for practicing the invention provided in the specification<sup>8</sup>, the relative skill of those practicing the art and the breadth of the claims, the asserted claims fail to meet the enablement requirement of 35 U.S.C. § 112 ¶ 1.

The full claims of the asserted patents fail to satisfy the enablement and written description requirements for the following reasons:

#### The '683 Patent

Claim 2: Claim 2 of the '683 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling

The failure of the specifications to provide necessary guidance also establishes that the claims fail to meet the written description requirement of 35 U.S.C. § 112 ¶ 1.

<sup>&</sup>lt;sup>6</sup> In its discovery responses, InterTrust refuses to identify software programs necessary for practicing the inventions purportedly disclosed in the asserted patents. *See* InterTrust responses to Microsoft Interrogatory Nos. 39 and 40.

<sup>&</sup>lt;sup>7</sup> See Appendix C for further element by element analysis of invalidity for failure to satisfy 35 U.S.C. § 112 ¶ 1. The indefiniteness of the claim terms addressed in Exhibit C affect enablement because the indefiniteness of the claim terms prevents the specification from adequately teaching a person of skill in the art how to make and use the full scope of the claimed inventions without undue experimentation.

software and operation of such software on accompanying hardware. Specifically, limitations in Claim 2 (63:40-66), both explicitly and implicitly require software. Since no software is disclosed in the specification, and since the specification provides no useful programming guidance, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 2. Claim 2 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "security", "secure container," "containing"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 2 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

Claim 3: Claim 3 of the '683 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software and operation of such software on accompanying hardware. Specifically, several limitations in Claim 3 (64:6-30), both explicitly and implicitly require software. Since no software is disclosed in the specification, and insufficient programming guidance (if any) is provided by the specification, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 3. Claim 3 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "security", "secure container," "rule"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 3 fails the enablement and written description requirements of 35 U.S.C. § 112 § 1.

Claim 4: Claim 4 is dependent upon Claim 3 and thus fails the enablement and

written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 4 fails because it requires additional undisclosed software.

Claim 5: Claim 5 of the '683 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software and operation of such software on accompanying hardware. Specifically, several limitations in Claim 5 (64:41-66), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 5. Claim 5 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "security", "secure container," "governed item"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 5 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

Claim 6: Claim 6 is dependent upon Claim 5 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 6 fails because it requires additional undisclosed software..

Claim 28: Claim 28 of the '683 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software and operation of such software on accompanying hardware. Specifically, several limitations in Claim 28 (70:20-59), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 28. Claim 28

also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "security," "electronic intermediary," "being associated with . . ."). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 28 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

Claim 29: Claim 29 is dependent upon Claim 28 and fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 29 fails because it requires additional undisclosed software. Claim 29 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "operatively connected"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed

Claim 56: Claim 56 of the '683 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software and operation of such software on accompanying hardware. Specifically, several limitations in Claim 56 (77:34-56), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 56. Claim 56 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "security," "secure container," "secure electronic container"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated

above with respect to all of the claims, Claim 56 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

Claim 126: Claim 126 of the '683 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software and operation of such software on accompanying hardware. Specifically, several limitations in Claim 126 (82:50-83:7), both explicitly and implicitly require software.

Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 126. Claim 126 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "security," "secure digital container," "trusted intermediary services"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 126 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

Claim 127: Claim 127 is dependent upon Claim 126 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 127 fails because it requires additional undisclosed software. Claim 127 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "at least in part identifies"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed

#### The '193 Patent

Claim 1: Claim 1 of the '195 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the

purportedly disclosed invention without undue experimentation in the development of enabling software and operation of such software on accompanying hardware. Specifically, several limitations in Claim 1 (320:62-321:18), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 1. Claim 1 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "budget control," "secure database," "copy control"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 1 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

Claim 2: Claim 2 is dependent upon Claim 1 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 2 fails because it requires additional undisclosed software. Claim 127 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "a time substantially contemporaneous"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed

Claim 3: Claim 3 is dependent upon Claim 2 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 3 fails because it requires additional undisclosed software. Claim 3 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "encumbrance on said budget"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the

full scope claimed.

Claim 4: Claim 4 is dependent upon Claim 3 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 4 fails because it requires additional undisclosed software. Claim 4 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "digital file authorized by said budget"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 11: Claim 11 of the '193 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software and operation of such software on accompanying hardware. Specifically, several limitations in Claim 11 (322:22-45), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 11. Claim 11 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "security," "secure memory," "features"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 11 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

Claim 15: Claim 15 of the '193 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software and operation of such software on accompanying hardware. Specifically, several

limitations in Claim 15 (323:15-41), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 15. Claim 15 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "security," "secure database"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 15 fails the enablement and written description requirements of 35 U.S.C. § 112

Claim 16: Claim 16 is dependent upon Claim 15 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 16 fails because it requires additional undisclosed software. Claim 16 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "authentication step"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed

Claim 19: Claim 19 of the '193 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without unduc experimentation in the development of enabling software and operation of such software on accompanying hardware. Specifically, several limitations in Claim 19 (324:9-37), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Giaim 19. Claim 19 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g.

"clearinghouse"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 19 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

Claim 51: Claim 51 of the '193 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software and operation of such software on accompanying hardware. Specifically, several limitations in Claim 51 (326:51-327:12), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 51. Claim 51 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "security," "clearinghouse," "location remote from"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 51 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

#### The '861 Patent

Claim 34: Claim 34 of the '861 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software. Specifically, several limitations in Claim 34 (24:65-25:15), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make

and use the full scope of Claim 34. Claim 34 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "descriptive data structure," "element information," "metadata rules"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 34 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

Claim 35: Claim 35 is dependent on Claim 34 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 35 fails because it requires additional undisclosed software. Claim 35 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "rights management data structure"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 36: Claim 36 is dependent on Claim 35 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 36 fails because it requires additional undisclosed software. Claim 36 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "content," "rules at least in part governing..."). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 37: Claim 37 is dependent on Claim 36 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ I for the reasons stated above. In addition, the limitation of Claim 37 fails because it requires additional undisclosed software. Claim 37 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "descriptive data structure is stored within said first secure container"). The specification does

not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 44: Claim 44 is dependent on Claim 34 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 44 fails because it requires additional undisclosed software. Claim 44 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "representation of the format of data..."). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 45: Claim 45 is dependent on Claim 44 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 45 fails because it requires additional undisclosed software. Claim 45 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "information regarding elements . . ."). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 46: Claim 46 is dependent on Claim 44 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 46 fails because it requires additional undisclosed software. Claim 46 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "target data block"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 47: Claim 47 is dependent on Claim 46 and thus fails the enablement and

written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 47 fails because it requires additional undisclosed software. Claim 47 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "target data block," "target environment"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 48: Claim 48 is dependent on Claim 46 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 48 fails because it requires additional undisclosed software. Claim 48 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "source," "source message field"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 58: Claim 34 of the '861 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software. Specifically, several limitations in Claim 34 (24:65-25:15), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 34. Claim 34 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "metadata information," "generating or identifying at least one rule . . ."). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims,

Claim 34 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

Claim 64: Claim 64 is dependent on Claim 58 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 64 fails because it requires additional undisclosed software. Claim 64 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "creation of said first secure container"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 67: Claim 67 is dependent on Claim 64 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 67 fails because it requires additional undisclosed software. Claim 67 also fails the enablement requirement in light of the breadth of the subject matter claimed. The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 68: Claim 68 is dependent on Claim 67 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 68 fails because it requires additional undisclosed software. Claim 68 also fails the enablement requirement in light of the breadth of the subject matter claimed. The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 71: Claim 71 is dependent on Claim 58 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 71 fails because it requires additional undisclosed software. Claim 71 also fails the enablement requirement in light of the breadth of the subject matter claimed. The specification does not teach a person of ordinary skill in the art how to practice the full scope of

the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 72: Claim 72 depends to Claim 58 and fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 72 fails because it requires additional undisclosed software.

#### The '891 Patent

Claim 1: Claim 1 of the '891 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software. Specifically, several limitations in Claim 1 (318:59-319:8), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 1. Claim 1 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "securely receiving," "secure operating environment," "control"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 1 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

Claim 22: Claim 22 of the '891 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software. Specifically, several limitations in Claim 22 (320:15-31) both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 22. Claim 22 also fails the enablement requirement in light of the breadth

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of the subject matter claimed (e.g. "securely combining," "control arrangement," "securely requiring"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 22 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

Claim 23: Claim 23 is dependent on Claim 34 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 23 fails because it requires additional undisclosed software.

Claim 26: Claim 26 of the '891 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software. Specifically, several limitations in Claim 26 (320:40-55) both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 26. Claim 26 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "composite data item," securely providing,"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 26 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

Claim 27: Claim 27 is dependent on Claim 26 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 27 fails because it requires additional undisclosed software. Claim 27 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "combining step"). The specification does not teach a person of ordinary skill in the art how to

practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 28: Claim 28 is dependent on Claim 26 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 28 fails because it requires additional undisclosed software. Claim 28 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "composite"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 29: Claim 29 is dependent on Claim 26 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 29 fails because it requires additional undisclosed software. Claim 29 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "ensuring the integrity of said association . . ."). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 31: Claim 31 is dependent on Claim 26 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 31 fails because it requires additional undisclosed software. Claim 31 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "codelivering"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 35: Claim 35 of the '891 patent fails the enablement requirement because

the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software. Specifically, several limitations in Claim 35 (321:29-41), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 35. Claim 35 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "secure operating environment"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 35 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

Claim 36: Claim 36 of the '891 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software. Specifically, several limitations in Claim 36 (321:44-57), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 36. Claim 36 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "secure operating environment system," "operatively connected," "logically associated with"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims. Claim 36 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

 Claim 39: Claim 39 is dependent on Claim 22 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 39 fails because it requires additional undisclosed software. Claim 39 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "persistently associating," "control arrangement"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 40: Claim 40 is dependent upon Claim 26 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 40 fails because it requires additional undisclosed software. Claim 40 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "control arrangement"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 51: Claim 51 is dependent upon Claim 1 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 51 fails because it requires additional undisclosed software. Claim 51 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "end user electronic appliance," "secure processing step"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 53: Claim 53 is dependent upon Claim 22 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 53 fails because it requires additional undisclosed software. Claim 53 also fails the enablement requirement in light of the breadth of the subject matter

claimed (e.g. "end user electronic appliance"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 54: Claim 54 is dependent upon Claim 26 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 54 fails because it requires additional undisclosed software. Claim 54 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "end user electronic appliance"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 56: Claim 56 is dependent upon Claim 35 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 56 fails because it requires additional undisclosed software. Claim 56 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "end user electronic appliance"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 57: Claim 57 is dependent upon Claim 36 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 57 fails because it requires additional undisclosed software. Claim 57 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "end user electronic appliance," "protected processing environment"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

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Claim 58: Claim 58 is dependent upon Claim 1 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 58 fails because it requires additional undisclosed software. Claim 58 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "entity's control"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 60: Claim 60 is dependent upon Claim 22 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 60 fails because it requires additional undisclosed software. Claim 60 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "supplying," "control"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 61: Claim 61 is dependent upon Claim 26 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 61 fails because it requires additional undisclosed software. Claim 61 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "providing"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 63: Claim 63 is dependent upon Claim 35 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 63 fails because it requires additional undisclosed software. Claim 63 also fails the enablement requirement in light of the breadth of the subject matter

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 claimed (e.g. "securely receiving"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 64: Claim 64 is dependent upon Claim 36 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 64 fails because it requires additional undisclosed software. Claim 64 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "controls"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 65: Claim 65 is dependent upon Claim 1 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 65 fails because it requires additional undisclosed software. Claim 65 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "secure processing environment"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 67: Claim 67 is dependent upon Claim 22 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 67 fails because it requires additional undisclosed software.

Claim 67 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "secure processing environment"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 68: Claim 68 is dependent upon Claim 26 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 68 fails because it requires additional undisclosed software. Claim 68 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "secure processing environment"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 70: Claim 70 is dependent upon Claim 35 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 70 fails because it requires additional undisclosed software. Claim 70 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "secure processing environment," "securely processing," "securely executing"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 71: Claim 71 is dependent upon Claim 1 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 71 fails because it requires additional undisclosed software. Claim 71 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "securely combining," "control arrangement"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 74: Claim 74 is dependent upon Claim 35 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 74 fails because it requires additional undisclosed software. Claim 74 also fails the enablement requirement in light of the breadth of the subject matter

claimed (e.g. "securely combining," "combined executable"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 75: Claim 75 is dependent upon Claim 36 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 75 fails because it requires additional undisclosed software. Claim 75 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "combined control arrangement"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 76: Claim 76 is dependent upon Claim 1 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ I for the reasons stated above. In addition, the limitation of Claim 76 fails because it requires additional undisclosed software. Claim 76 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "securely receiving steps," "independently performed at different times"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 79: Claim 79 is dependent upon Claim 26 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 79 fails because it requires additional undisclosed software.

Claim 81: Claim 81 is dependent upon Claim 35 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 § 1 for the reasons stated above. In addition, the limitation of Claim 81 fails because it requires additional undisclosed software. Claim 81 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "securely receiving steps"). The specification does not teach a person of ordinary

skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 82: Claim 82 is dependent upon Claim 36 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 82 fails because it requires additional undisclosed software. Claim 82 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "controls"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 84: Claim 84 is dependent upon Claim 1 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 84 fails because it requires additional undisclosed software. Claim 84 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "first/second entity's control"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 86: Claim 86 is dependent upon Claim 26 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 86 fails because it requires additional undisclosed software. Claim 86 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "control"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 88: Claim 88 is dependent upon Claim 36 and thus fails the enablement

 and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 88 fails because it requires additional undisclosed software. Claim 88 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "control"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 89: Claim 89 is dependent upon Claim 1 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 89 fails because it requires additional undisclosed software. Claim 89 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "control," "protected processing environment"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 91: Claim 91 is dependent upon Claim 22 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ I for the reasons stated above. In addition, the limitation of Claim 91 fails because it requires additional undisclosed software. Claim 91 also fails the enablement requirement in light of the breadth of the subject matter claimed. The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 94: Claim 94 is dependent upon Claim 35 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 94 fails because it requires additional undisclosed software. Claim 94 also fails the enablement requirement in light of the breadth of the subject matter claimed. The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake

undue experimentation in order to make and use the invention across the full scope claimed.

Claim 95: Claim 95 is dependent upon Claim 36 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 95 fails because it requires additional undisclosed software. Claim 95 also fails the enablement requirement in light of the breadth of the subject matter claimed. The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

### The '912 Patent

Claim 6: Claim 6 of the '912 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software. Specifically, several limitations in Claim 6 (326:65-327:23), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 6. Claim 6 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "relatively lower level of security," "private portion characterized by...," "accessing," "record"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 6 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

Claim 7: Claim 7 is dependent upon Claim 8 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 7 fails because it requires additional undisclosed software. Claim 7 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g.

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"relatively higher/lower level of security"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 8: Claim 8 of the '912 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software. Specifically, several limitations in Claim 8 (\_\_\_\_\_\_), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 8. Claim 8 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "higher/lower level of security," "execution space identifier," "assembling"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 8 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

Claim 9: Claim 9 is dependent upon Claim 8 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 9 fails because it requires additional undisclosed software.

Claim 13: Claim 13 is dependent upon Claim 8 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 13 fails because it requires additional undisclosed software. Claim 13 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "a security level higher that that of the execution space,"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the

invention across the full scope claimed.

Claim 14: Claim 14 is dependent upon Claim 13 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 14 fails because it requires additional undisclosed software.

Claim 35: Claim 35 of the '912 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software. Specifically, several limitations in Claim 35 (330:27-57), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 35. Claim 35 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "second processing environment remote from first processing environment," "identification information"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 35 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

#### The '900 Patent

Claim 155: Claim 155 of the '900 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software. Specifically, several limitations in Claim 155 (370:30-55), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 155. Claim 155 also fails the enablement requirement in light of

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the breadth of the subject matter claimed (e.g. "host processing environment," "tamper resistant software designed to be loaded into said main memory . . .," "machine check programming which derives information . .," "integrity programming"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 155 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

Claim 156: Claim 156 of the '900 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software. Specifically, several limitations in Claim 156 (370:57-371:15), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 156. Claim 156 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "virtual distribution environment," "host processing environment," "tamper resistant software designed to be loaded into said main memory...," "machine check programming which derives information...," "integrity programming"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 156 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

Claim 157: Claim 157 of the '900 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software. Specifically, several limitations in Claim 157 (371:16-42), both explicitly and

implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 157. Claim 157 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "virtual distribution environment," "host processing environment," "tamper resistant software designed to be loaded into said main memory . . .," "machine check programming which derives information . . .," "integrity programming"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 157 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

## The '721 Patent

Claim 1: Claim 1 of the '721 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software. Specifically, several limitations in Claim 1 (21:10-24), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 1. Claim 1 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "load module," "tamper resistance," "security level"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 1 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

Claim 5: Claim 5 of the '721 patent fails the enablement requirement because the

 specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software. Specifically, several limitations in Claim 5 (21:39-47), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 5. Claim 5 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "software verifying method," "specification"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 5 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

Claim 9: Claim 9 of the '721 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software. Specifically, several limitations in Claim 9 (22:5-15), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 9. Claim 9 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "distinguishing between trusted and untrusted load modules ...," "associated digital signature," "conditionally executing"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 9 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

 Claim 14: Claim 14 of the '721 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software. Specifically, several limitations in Claim 14 (22:44-51), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 14. Claim 14 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "arrangement within the first tamper resistant barrier that prevents . . .,"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 14 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

Claim 18: Claim 18 of the '721 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software. Specifically, several limitations in Claim 18 (22:64-25:3), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 18. Claim 18 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "preventing the first computing arrangement . . . ").

The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims. Claim 18 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

Claim 34: Claim 34 of the '721 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software. Specifically, several limitations in Claim 34 (24:47-56), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 34. Claim 34 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "secure execution space," "security level"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 34 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

Claim 38: Claim 38 of the '721 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software. Specifically, several limitations in Claim 38 (25:1-8), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 38. Claim 38 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "computing arrangement surrounded by a first tamper resistant barrier . . .," "security level"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 38 fails the enablement and written description requirements of 35 U.S.C.

§ 112 ¶ 1.

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# The '019 Patent

Claim 1: Claim 1 of the '019 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software. Specifically, several limitations in Claim 1 (319:46-320:7), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 1. Claim 1 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "associated control," "protected," transferring," "protected content file") The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 1 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

Claim 33: Claim 33 of the '019 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software. Specifically, several limitations in Claim 33 (323:60-324:14), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 33. Claim 33 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "means for incorporating," "means for transferring," "protected data") The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope

claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 33 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

Claim 34: Claim 34 is dependent upon Claim 33 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 34 fails because it requires additional undisclosed software. Claim 34 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "means for applying"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 35: Claim 35 is dependent upon Claim 34 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 35 fails because it requires additional undisclosed software. Claim 35 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "means for applying"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 41: Claim 41 of the '019 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software. Specifically, several limitations in Claim 41 (325:7-29), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 41. Claim 41 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "virtual distribution environment"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person

of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 41 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

Claim 42: Claim 42 is dependent upon Claim 41 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 42 fails because it requires additional undisclosed software. Claim 42 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "control," "protected information," "secure container"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 47: Claim 47 is dependent upon Claim 41 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 47 fails because it requires additional undisclosed software. Claim 47 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "control"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 52: Claim 52 is dependent upon Claim 41 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 52 fails because it requires additional undisclosed software. Claim 52 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "creating" "secure container," "site"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 53: Claim 53 is dependent upon Claim 52 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 53 fails because it requires additional undisclosed software. Claim 53 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "associated"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake unduc experimentation in order to make and use the invention across the full scope claimed.

Claim 54: Claim 54 is dependent upon Claim 53 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 54 fails because it requires additional undisclosed software. Claim 54 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "associated"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 55: Claim 55 is dependent upon Claim 54 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 55 fails because it requires additional undisclosed software. Claim 55 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "site"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 64: Claim 64 is dependent upon Claim 54 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 64 fails because it requires additional undisclosed software. Claim 64 also fails the enablement requirement in light of the breadth of the subject matter

 claimed (e.g. "portion of said first protected information"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake unduc experimentation in order to make and use the invention across the full scope claimed.

Claim 76: Claim 76 is dependent upon Claim 41 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 76 fails because it requires additional undisclosed software. Claim 76 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "secure container," "contained"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake unduc experimentation in order to make and use the invention across the full scope claimed.

Claim 78: Claim 78 is dependent upon Claim 52 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 78 fails because it requires additional undisclosed software. Claim 78 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "secure container," "contained"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 81: Claim 81 of the '019 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software. Specifically, several limitations in Claim 81 (328:9-23), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 81. Claim 81 also fails the enablement requirement in light of the breadth

of the subject matter claimed (e.g. "means for incorporating") The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 81 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

Claim 82: Claim 82 is dependent upon Claim 81 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 82 fails because it requires additional undisclosed software. Claim 82 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "means for applying," "govern"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 83: Claim 83 is dependent upon Claim 82 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 83 fails because it requires additional undisclosed software. Claim 83 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "govern," "means for applying"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 85: Claim 85 of the '019 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software. Specifically, several limitations in Claim 85 (328:28-56), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of

 trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 85. Claim 85 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "creating," "copying," transferring") The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 85 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

Claim 87: Claim 87 is dependent upon Claim 85 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ I for the reasons stated above. In addition, the limitation of Claim 87 fails because it requires additional undisclosed software. Claim 87 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "copied," "protected information"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 89: Claim 89 is dependent upon Claim 85 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 89 fails because it requires additional undisclosed software. Claim 89 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "copying," "transferring"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 90: Claim 90 is dependent upon Claim 85 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 90 fails because it requires additional undisclosed software. Claim 90 also fails the enablement requirement in light of the breadth of the subject matter

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 claimed (e.g. "memory"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 93: Claim 93 is dependent upon Claim 85 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 93 fails because it requires additional undisclosed software. Claim 93 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "copying transferring"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 94: Claim 94 is dependent upon Claim 85 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 89 fails because it requires additional undisclosed software.

Claim 95: Claim 95 is dependent upon Claim 94 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 95 fails because it requires additional undisclosed software. Claim 95 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "copied," "protected information"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 96: Claim 96 of the '019 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software. Specifically, several limitations in Claim 96 (329:38-330:12), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no

meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 96. Claim 96 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "virtual distribution environment," "protected information") The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 96 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

## The '876 Patent

Claim 2: Claim 2 of the '876 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software. Specifically, several limitations in Claim 2 (319:20-32), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 2. Claim 2 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "means for . . . securely integrating," "value chain extended agreement"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 2 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

Claim 11: Claim 11 is dependent upon Claim 2 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 11 fails because it requires additional undisclosed software. Claim 11 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g.

"Virtual Distribution Environment"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 29: Claim 29 is dependent upon Claim 2 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 29 fails because it requires additional undisclosed software. Claim 29 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "secure control," "required terms"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 32: Claim 32 is dependent upon Claim 2 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 32 fails because it requires additional undisclosed software. Claim 32 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "secure control," "required terms"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 60: Claim 60 is dependent upon Claim 2 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ I for the reasons stated above. In addition, the limitation of Claim 60 fails because it requires additional undisclosed software. Claim 60 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "secure control," "required terms"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

 Claim 130: Claim 130 is dependent upon Claim 2 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 29 fails because it requires additional undisclosed software. Claim 29 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "means for executing... control"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 132: Claim 132 is dependent upon Claim 130 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 132 fails because it requires additional undisclosed software. Claim 132 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "protected processing environment"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 161: Claim 161 is dependent upon Claim 2 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 161 fails because it requires additional undisclosed software. Claim 161 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "machine executable controls"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 162: Claim 162 is dependent upon Claim 161 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 162 fails because it requires additional undisclosed software. Claim 162 also fails the enablement requirement in light of the breadth of the subject matter.

claimed (e.g. "data descriptor data structures"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 170: Claim 170 is dependent upon Claim 2 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 170 fails because it requires additional undisclosed software. Claim 170 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "means for creating a first secure control"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake unduc experimentation in order to make and use the invention across the full scope claimed.

Claim 171: Claim 171 is dependent upon Claim 2 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 171 fails because it requires additional undisclosed software. Claim 171 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "means for creating... secure control"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 172: Claim 172 is dependent upon Claim 2 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 172 fails because it requires additional undisclosed software. Claim 172 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "means . . . for securely integrating"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 329: Claim 329 is dependent upon Claim 2 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 329 fails because it requires additional undisclosed software. Claim 329 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "means for creating . . . secure control"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 331: Claim 331 is dependent upon Claim 2 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 331 fails because it requires additional undisclosed software. Claim 331 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "means . . . for securely integrating," "based on or compatible with . . ."). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 346: Claim 346 is dependent upon Claim 2 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 346 fails because it requires additional undisclosed software. Claim 346 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "means by which said third control set governs . . ."). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 347: Claim 347 is dependent upon Claim 2 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 § 1 for the reasons stated above. In addition, the limitation of Claim 347 fails because it requires additional undisclosed software. Claim 347 also fails the enablement requirement in light of the breadth of the subject matter

claimed (e.g. "means by which said third control set governs the execution of at least one method"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 349: Claim 349 is dependent upon Claim 2 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 349 fails because it requires additional undisclosed software. Claim 349 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "means by which said third control set governs the execution of at least one procedure"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

# The '181 Patent

Claim 48: Claim 48 of the '181 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software. Specifically, several limitations in Claim 48 (48:17-38), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 48. Claim 48 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "narrowcasting selected digital information," secure node," "information derived in part from specified recipient's creation"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons

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stated above with respect to all of the claims, Claim 48 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

Claim 59: Claim 59 is dependent upon Claim 48 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 59 fails because it requires additional undisclosed software. Claim 59 also fails the enablement requirement in light of the breadth of the subject matter claimed. The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 61: Claim 61 is dependent upon Claim 48 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 61 fails because it requires additional undisclosed software. Claim 61 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "entertainment information"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 63: Claim 63 is dependent upon Claim 48 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 63 fails because it requires additional undisclosed software. Claim 63 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "music information"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 67: Claim 67 is dependent upon Claim 48 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 § 1 for the reasons stated above. In addition, the limitation of Claim 67 fails because it requires additional undisclosed software.

Claim 67 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "digital certificate information"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 70: Claim 70 is dependent upon Claim 48 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 70 fails because it requires additional undisclosed software. Claim 70 also fails the enablement requirement in light of the breadth of the subject matter claimed. The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 72: Claim 72 is dependent upon Claim 48 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 72 fails because it requires additional undisclosed software. Claim 72 also fails the enablement requirement in light of the breadth of the subject matter claimed. The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 75: Claim 75 is dependent upon Claim 72 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 75 fails because it requires additional undisclosed software. Claim 75 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "acceptable clearinghouse," "rights and permissions clearinghouse"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 89: Claim 89 is dependent upon Claim 48 and thus fails the enablement

 and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above.

Claim 91: Claim 91 of the '181 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software. Specifically, several limitations in Claim 91 (86:47-87:4), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use the full scope of Claim 91. Claim 91 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "narrowcasting selected digital information," secure node," "information derived in part from specified recipient entity's creation"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 91 fails the enablement and written description requirements of 35 U.S.C. § 112 § 1.

Claim 104: Claim 104 is dependent upon Claim 91 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 104 fails because it requires additional undisclosed software. Claim 104 also fails the enablement requirement in light of the breadth of the subject matter claimed. The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 109: Claim 109 is dependent upon Claim 91 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 109 fails because it requires additional undisclosed software.

Claim 109 also fails the enablement requirement in light of the breadth of the subject matter claimed. The specification does not teach a person of ordinary skill in the art how to practice the

full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 114: Claim 114 is dependent upon Claim 91 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 114 fails because it requires additional undisclosed software. Claim 114 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "clearinghouse acceptable to rightsholders"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 117: Claim 117 is dependent upon Claim 114 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above. In addition, the limitation of Claim 117 fails because it requires additional undisclosed software. Claim 117 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "rights and permissions clearinghouse"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed.

Claim 131: Claim 131 is dependent upon Claim 91 and thus fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1 for the reasons stated above.

#### The '402 Patent

Claim 1: Claim 1 of the '402 patent fails the enablement requirement because the specification does not teach a person of ordinary skill in the relevant arts how to practice the purportedly disclosed invention without undue experimentation in the development of enabling software. Specifically, several limitations in Claim 1 (322:5-25), both explicitly and implicitly require software. Since no software is disclosed in the specification, and no meaningful programming guidance is provided, a person of skill in the art would have to engage a process of trial and error, perhaps followed by bottom up software development, in order to make and use

the full scope of Claim 1. Claim 1 also fails the enablement requirement in light of the breadth of the subject matter claimed (e.g. "creating," "having associated a first control" "value chain extended agreement," "transferring"). The specification does not teach a person of ordinary skill in the art how to practice the full scope of the claim, and a person of skill in the art would therefore be required to undertake undue experimentation in order to make and use the invention across the full scope claimed. For these reasons and for the reasons stated above with respect to all of the claims, Claim 1 fails the enablement and written description requirements of 35 U.S.C. § 112 ¶ 1.

### IV. Patent L.R. 3-4

Each reference identified pursuant to PLR 3-3(a) but not in the prosecution history, and the documents referenced in PLR 3-4 that are sufficient to show the operation of the accused features of the products specifically and properly identified in InterTrust's PLR 3-1 Statements of September 2, 2003, has been or is being produced, or is otherwise available for inspection and copying. As set forth in greater detail in Microsoft's Motion to Strike InterTrust's Infringement Contentions (filed October 8, 2003), InterTrust's Infringement Contentions pursuant to PLR 3-1 largely fail to properly identify the "accused instrumentalities." Accordingly, Microsoft reserves its right to modify this production, if necessary. Microsoft has specifically sought, and has been granted, greater protection and confidentiality for its source code than that provided by Patent Local Rule 2-2. Source code for the Accused Instrumentalities is being made available for inspection at the offices of Ortick, Herrington & Sutcliffe LLP only in accordance with

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1	Magistrate James' Order of November 5, 2003. Microsoft does not concede that any source cod	
2	made available for inspection (or any corresponding product or software) is or should be	
3	considered an Accused Instrumentality.	
4		
5	Dated: November 17, 2003	WILLIAM L. ANTHONY
6		ERIC L. WESENBERG HEIDI L. KEEFE ORRICK, HERRINGTON & SUTCLIFFE LLP
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